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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/072,412	05/04/1998	STEPHEN R. SCHWARTZ	15381	6519

7590 02/03/2003

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EXAMINER

PENDLETON, BRIAN T

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/072,412	SCHWARTZ, STEPHEN R.
	Examiner	Art Unit
	Brian T. Pendleton	2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 31 October 2002.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-5,13-15 and 28-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-5,13-15 and 28-30 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s) _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruce Bartlett, "Tonal Effects of Close Microphone Placement". Bartlett teaches a method of tonal correction to equalize an instrument to sound natural when miked up close. Section 3 discloses how reference sounds are generated, by placing a microphone at a reference point where well-balanced timbre would be heard (based on taste and experience, approximately 1 meter from a guitar). Subsequently, a first microphone is placed at a selected location proximate to the guitar (figure 3) and sounds are generated by the guitar and picked up by the microphone. The sound from the close miking is compared to the reference sounds and the curves describing the difference between the close miked spectrum and the reference (1 meter) spectrum are illustrated in figures 4-15. Thus, sounds from the guitar are compared to reference sounds. Section 5 teaches that an equalizer for the close microphone for the guitar can be made by utilizing the inverse of the spectral curves of figures 4-15. See figure 16. Figure 17 shows the attached microphone and its tailored made equalizer. Claim 1 is met. Per claim 2, figure 17 shows the microphone attached to the guitar. Regarding claim 5, Bartlett discloses several different embodiments of the guitar including a steel-

string guitar and nylon string guitar. Sounds are generated from each of those embodiments and compared to reference sounds from those embodiments. Per claim 13, inherently an equalizer contains filter elements. As to claim 14, as discussed before, the microphone is attached to the guitar.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 3, 4, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett. Bartlett discloses a method for constructing a tailored-made equalizer for a microphone attached to a guitar comprising generating reference sounds, generating sounds from a microphone placed proximate to the guitar, comparing the two sounds and making an equalizer based on the inverse of the difference of the two sounds. Bartlett does not disclose that the comparison is based on subjective listening to the two sounds. However, it was proposed in the article to use blind listening tests to compare the tone qualities picked up at various microphone positions. As shown in the figures the placement of the microphone with respect to the guitar led to different listener comments. The comments told the problems of the sounds generated by the microphone (i.e. bassy, lacking midrange, etc.). Thus, one of ordinary skill in the art would have been motivated to provide an equalizer based on the subjective analysis since it could have been used to correct the instrument's tonal impression based on close miking since it would have cost less than using a spectrum analyzer and deriving an inverse frequency response curve. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of invention to compare the reference sounds and generated sounds by listening to the sounds. Claims 3 and 4 are met. Regarding claim 15, at the time of invention, it was obvious to use digital filters for equalization.

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett in view of Niwayama. Bartlett does not disclose that a tailored made equalizer has variable controls. However, it was well known at the time of invention that equalizers were constructed with variable controls, as evidenced by Niwayama (figures 1, 6, 11). It was advantageous to use variable controls so as to give the user of the equalizer the capability to change the gains in the bands to further "tailor" the response to sound more pleasing to the listener or further "tweak" the microphone's response. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use variable controls, per the teachings of Niwayama, in the equalizers described by Bartlett.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Brian Tyrone Pendleton
January 15, 2003


FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600